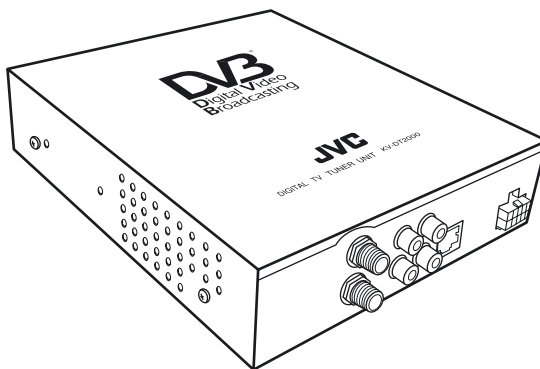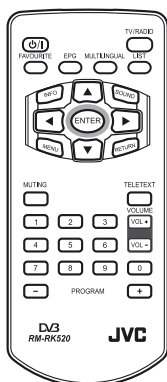# JVC

DIGITAL TV TUNER UNIT

KV-DT2000

For installation and connections, refer to the separate manual.

INSTRUCTIONS

Thank you for purchasing a JVC product.
Please read all instructions carefully before operation, to ensure your complete understanding and to obtain the best possible performance from the unit.

Contents

Wir danken Ihnen für den Kauf eines JVC Produkts.
Bitte lesen Sie die Anleitung vollständig durch, bevor Sie das Gerät in Betrieb nehmen, um sicherzustellen, daß Sie alles vollständig verstehen und die bestmögliche Leistung des Geräts erhalten.

Inhalt

Merci pour avoir acheté un produit JVC.
Veuillez lire attentivement toutes les instructions avant d'utiliser l'appareil afin de bien comprendre son fonctionnement et d'obtenir les meilleures performances possibles.

Table des matières

Hartelijk dank voor de aanschaf van dit JVC-product!
Wij verzoeken u de gebruiksaanwijzing goed door te lezen voordat u het apparaat gaat gebruiken. Zo krijgt u een volledig inzicht in de functies van het apparaat en kunt u de mogelijkheden optimaal benutten.

Inhoud

ESPAÑOL

Muchas gracias por la compra de un producto JVC.
Como primer paso, por favor lea detenidamente este manual para comprender a fondo todas las instrucciones y obtener un máximo disfrute de esta unidad.

Contenido

ITALIANO

> **Per l'Italia:**
> "Si dichiara che il questo prodotto di marca JVC è conforme alle prescrizioni del Decreto Ministeriale n.548 del 28/08/95 pubblicato sulla Gazzetta Ufficiale della Repubblica Italiana n.301 del 28/12/95".

La ringraziamo per aver acquistato un prodotto JVC.
La invitiamo a leggere le presenti istruzioni prima di utilizzare l'apparecchio in modo da poterne sfruttare al meglio le prestazioni.

Indice

SVENSKA

Tack för att du köpt en JVC produkt.
Var snäll och läs noga alla instruktioner innan du använder den, så att du vet hur den ska skötas och kan få ut mesta möjliga av den.

Innehållsförteckning

DVB is a registered trademark of the DVB Project
DVB ist eine eingetragene Marke der DVB Project
DVB est une marque déposée du DVB Project

WARNINGS:

- **IF YOU NEED TO OPERATE THE UNIT WHILE DRIVING, BE SURE TO LOOK AHEAD CAREFULLY OR YOU MAY BE INVOLVED IN A TRAFFIC ACCIDENT.**
- **USE WITH DC 12 V NEGATIVE GROUND VEHICLES.**
  If your vehicle does not have this system, a voltage inverter is required, which can be purchased at a JVC IN-CAR ENTERTAINMENT dealer.
- **DO NOT INSTALL THE MONITOR IN A LOCATION WHICH OBSTRUCTS DRIVING AND VISIBILITY, OR WHERE APPLICABLE LAWS AND REGULATIONS PROHIBIT THE INSTALLATION.**
- **NEVER USE BOLTS OR NUTS FROM THE VEHICLE'S SAFETY DEVICES FOR INSTALLATION.**
  If bolts or nuts from the steering wheel, brakes, or other safety devices are used for installation, it may cause an accident.
- **CONNECT THE WIRES CORRECTLY.**
  If the wiring is not correctly connected, it may cause a fire or an accident. In particular, be sure to run and secure the lead wire so that it does not get tangled with a screw or the moving portion of a seat rail.
  To prevent short circuits, it is recommended that you disconnect the battery's negative terminal and make all electrical connections before installing the unit. If you are not sure how to install this unit correctly, have it installed by a qualified technician.
- **AVOID INSTALLING THE UNIT IN THE FOLLOWING PLACES:**
  – Where it would hinder your safe driving.
  – Where it would be exposed to direct sunlight or heat directly from the heater, or placed in an extremely hot place.
  – Where it would be subject to rain, water splashes or excessive humidity.
  – Where it would be subject to dust.
  – Where it would be positioned in a unstable location.
  – Where it could damage the car's fittings.
  – Where proper ventilation would not be maintained, such as under a floor mat.
  – Where it would be located near flammable objects (since heat is generated inside the unit).

For safety....

- Do not raise the volume level too much, as this will block outside sounds, making driving dangerous.
- Stop the car before performing any complicated operations.

Temperature inside the car....

If you have parked the car for a long time in hot or cold weather, wait until the temperature in the car becomes normal before operating the unit.
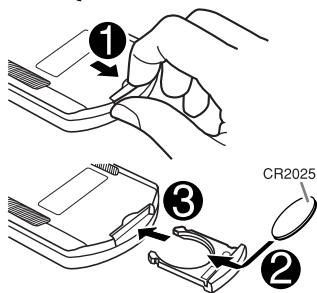
Controls and features

KV-DT2000 functions together with the supplied remote controller—RM-RK520.

■ How to reset your unit

RESET

or

(On the unit)

(On the external remote sensor)
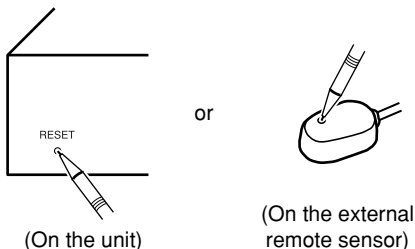
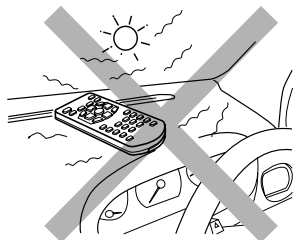*This will reset the microcomputer. Your preset adjustments will also be erased.*

■ Installing the lithium coin battery (CR2025)

CR2025

When operating, aim the remote controller directly at the remote sensor. Make sure there is no obstacle in between.

• For connecting the remote sensor, refer to the Installation/connection manual (separate volume).

Caution:

Warning:

• Do not install any battery other than CR2025 or its equivalent; otherwise, it may explode.
• Store the battery in a place where children cannot reach to avoid risk of accident.
• To prevent the battery from over-heating, cracking, or starting a fire:
  – Do not recharge, short, disassemble, heat the battery, or dispose of it in a fire.
  – Do not leave the battery with other metallic materials.
  – Do not poke the battery with tweezers or similar tools.
  – Wrap the battery with tape and insulate when throwing away or saving it.

Main elements and features
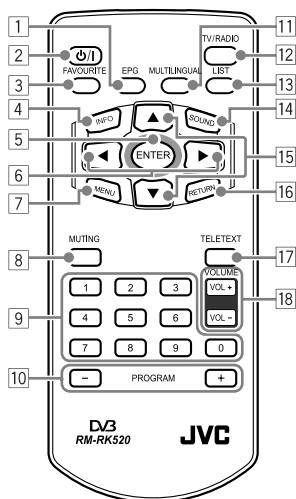
1 EPG (Electronic Program Guide) button*
   • Shows the TV program list sent by broadcast site. Press ▲/▼/◄/► to scroll to the desired channel and program.
2 ⏻/❙ (standby/on) button
   • Turns the power on or off.

To be continued....

5

3 FAVOURITE button*
  • Shows the Favourite CH (CHannel) list (see Category grouping on page 10). Press ▲/▼ to scroll to the desired channel, then press ENTER.
  • Resets to factory default setting if pressed and held while in the Main Menu screen.

4 INFO button
  • Shows the present/following program information, and clock.

5 ENTER button
  • While in setting mode, selects the highlighted function.
  • While in TV mode, displays the CH (CHannel) List.

6 ◄ (left) / ► (right) buttons
  • While in setting mode:
    ► (right): Scroll to the right.
    ◄ (left): Scroll to the left.
  • While in TV mode, adjusts the volume level.

7 MENU button
  • Shows the main menu. Press ▲/▼/◄/► to scroll to the desired submenu, then press ENTER.

8 MUTING button
  • Mutes the sound.

9 Number (0 – 9) buttons
  • Use for numeric entries, eg. program numbers, teletext page numbers, etc.

10 PROGRAM +/– buttons
  • While in TV mode, selects the TV programs.
  • While in radio mode, selects the radio programs.
  • While in teletext page, moves the teletext page up and down.

11 MULTILINGUAL button*
  • Selects the broadcast language if the selected program is broadcast in multi-language. Press ◄/► to scroll to the desired option, then press ENTER.

12 TV/RADIO button
  • Changes between the TV mode and radio mode. When radio mode is selected, only radio channels can be tuned in.

13 LIST button*
  • Selects the desired Service List (see page 11). Press ◄/► to scroll to the desired option, then press ENTER.

14 SOUND button
  • Select the appropriate sound system (AUTO, STEREO, MONO, Right-Both, Left-Both) for listening. Press SOUND repeatedly or ◄/► to scroll to the desired option, then press ENTER.

15 ▲ (up) / ▼ (down) buttons
  • While in setting mode, scrolls the selection menu up and down.
  • While in TV mode, selects the TV programs.
  • While in radio mode, selects the radio programs.
  • While in teletext page, moves the teletext page up and down.

16 RETURN button
  • While in setting mode, returns to the previous menu level.

17 TELETEXT button
  • Shows the teletext page if the TV station sends teletext signals. Press the number buttons to enter the desired teletext page.

18 VOL +/– buttons
  • Adjusts the volume level.

* *Also functions as the color buttons (red, green, yellow, and blue) to navigate within the teletext page.*

The availability of some functions depends on:
• Services provided by the local broadcasters.
• Compatibilities of the monitor/display units used.

Operations and Settings

Basic operations

Before operating the digital TV tuner, make sure all the connections are correctly connected and installed.

For watching TV programs:

1 **Turn on the monitor and this unit.**
   • The program from the previous channel (program position) will be shown if a service list is available; otherwise, "No Channel" will be shown.

2 **Select the input on the monitor to which this unit is connected.**

3 **Press ▲/▼ or PROGRAM +/– to select your desired program.**
   • You can also select the program from the CH (CHannel) List menu by pressing ENTER (see page 9).

4 **Press VOL +/– to adjust the volume.**

TV icon

TV
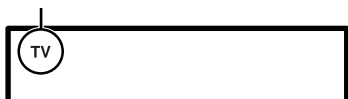
For listening to the radio:

1 **Turn on the monitor and this unit.**

2 **Press TV/RADIO to go to radio mode.**
   • If there is no radio program available, "No Channel" will be shown.

3 **Press ▲/▼ or PROGRAM +/– to select your desired program.**
   • You can also select the program from the CH (CHannel) List menu by pressing ENTER (see page 9).
   • A JVC logo screen appears.

4 **Press VOL +/– to adjust the volume.**

Radio icon
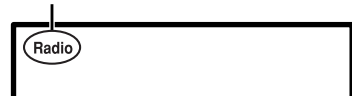
Radio

■ While watching TV programs/ Listening to the radio

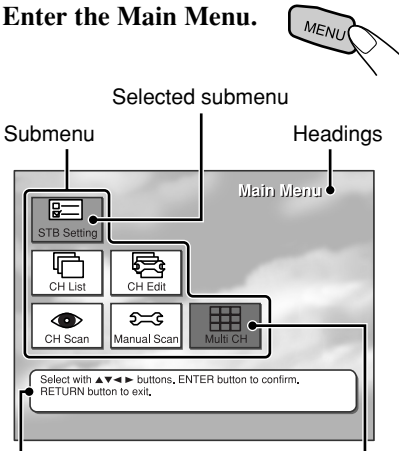| Operations	Press
To display the program list sent by broadcast site	EPG
To change the audio language	MULTILINGUAL
To display or exit from Teletext (only for TV programs)	TELETEXT
To show your favourite channels • To register the channels, see Category grouping on page 10.	FAVOURITE
To display the available service list	LIST
To show the program information	INFO
To select the sound modes (AUTO, STEREO, MONO, Right-Both, Left-Both)	SOUND

Setting the digital TV tuner

The adjustable items are grouped into six categories in the Main Menu:
- STB (Set Top Box) Setting
- CH (CHannel) List
- CH (CHannel) Edit
- CH (CHannel) Scan
- Manual Scan
- Multi CH (CHannel)

Basic procedure:

1 **Enter the Main Menu.**

MENU

Selected submenu

Submenu   Headings

Main Menu

STB Setting

CH List   CH Edit

CH Scan   Manual Scan   Multi CH

Select with ▲▼◄ ► buttons. ENTER button to confirm.
RETURN button to exit.

Operational instructions
(changes accordingly
when a different submenu
is selected)

Unavailable
submenu will not
be highlighted.

2 **Select the desired submenu.**
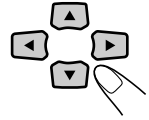
3 **Activate the selection.**
- To return to the Main Menu, press RETURN.

ENTER

4 **Select an item to adjust.**

5 **Select an option to adjust, if any.**

6 **Repeat steps 4 and 5 to select and adjust the other items.**
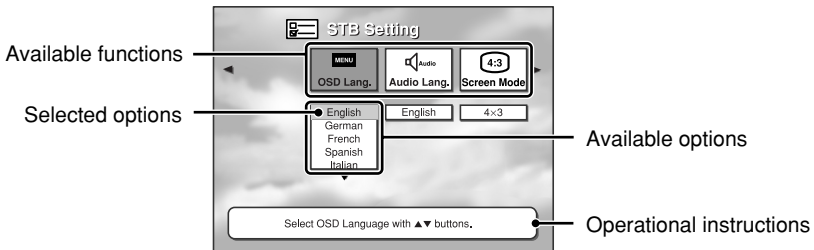
To return to the TV program

Press RETURN repeatedly.

RETURN

To turn off the power of this unit

Press ⏻/I (standby/on).

⏻/I

▉ STB (Set Top Box) Setting

You can set to show or use the functions listed below.

STB Setting

Available functions

MENU   Audio   4:3
OSD Lang.   Audio Lang.   Screen Mode

Selected options

English   English   4×3
German
French
Spanish
Italian

Available options

Select OSD Language with ▲▼ buttons.

Operational instructions

Available functions/options

|	
MENU **OSD Lang.**	On-Screen Display language **English** *[Default]*, **German**, **French**, **Spanish**, **Italian**
Audio **Audio Lang.**	Broadcast audio language **English** *[Default]*, **German**, **French**, **Spanish**, **Italian**
4:3 **Screen Mode**	Matching the monitor type **4 × 3** *[Default]*, **16 × 9**
Display Type	Matching the display type **Full Screen** *[Default]*, **Auto**
PAL **TV Mode**	TV system that matches your local broadcasters **Auto**, **PAL** *[Default]*, **NTSC**
Disp. Time	OSD display time **2S** (seconds), **5S** *[Default]*, **8S**, **10S**, **30S**
Transparency	OSD transparency level **0 — 7** (as the number increases, the transparency level increases) *[1: Default]*
Info **System Info.**	Technical information **Sys V1.1** *[Default]*

■ CH (CHannel) List

You can list all the available programs on this unit to select a program to watch while in TV mode. However, if the Category column of the programs show "$" symbols, you cannot watch these programs on this unit. These programs are Scrambled Programs (Pay TV).

• Press TV/RADIO to select radio mode. A JVC logo screen appears and you can select the radio services by pressing ▲/▼ or PROGRAM +/–.

Program numbers and names

Category (see Category grouping on page 10)

Operational instructions

Small window display

Technical information of the selected program
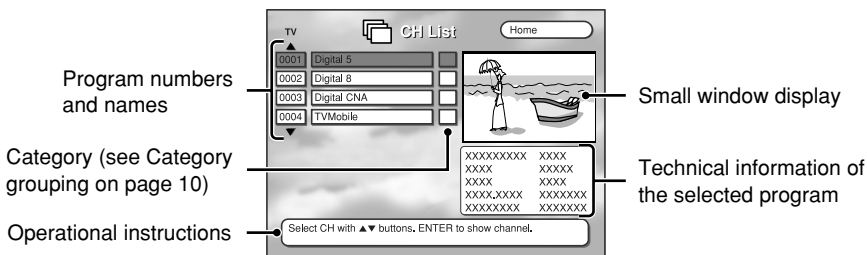
To show the CH List directly while watching a TV program
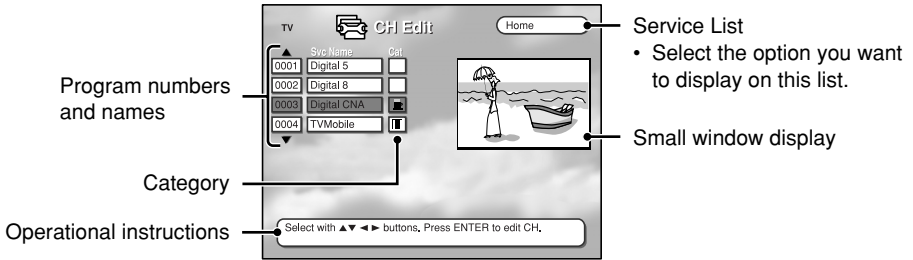
ENTER

• To return to the TV program, press ENTER again or RETURN.

CH (CHannel) Edit

You can edit the program name, group the program, and also sort the available programs. If Scrambled Programs ($) are shown, you cannot edit nor delete these programs.
- To sort the programs, press MULTILINGUAL to highlight the program you want to move. Then, press ▲/▼ to move the highlighted program within the list. Press MULTILINGUAL again to exit from this mode.
- To select Service List you want to display, press LIST repeatedly to scroll through all the available services.
- To delete one or all the channels, press FAVOURITE, then follow the instructions on the monitor.
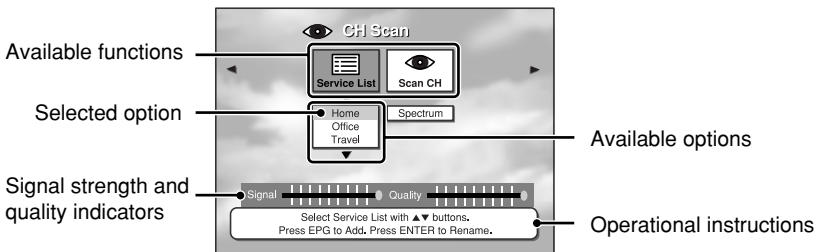

Service List
- Select the option you want to display on this list.

Program numbers and names

Category

Operational instructions

Small window display

Editing the channel status....

Press ▲/▼ to select the program to edit, then press ENTER.

Program name	To change the character, press ▲/▼. To move to the previous/next character, press ◄/►. To delete a character, press FAVOURITE. To finish editing, press ENTER.
Category grouping	Press ENTER repeatedly to select the category. • There are six different categories available—entertainment ( ), movie ( ), musical ( ), sport ( ), romance ( ), and news ( ). Only the categorized programs will be shown in the Favourite CH (CHannel) list.

CH (CHannel) Scan

You can search for the specified program/channel.

Available functions

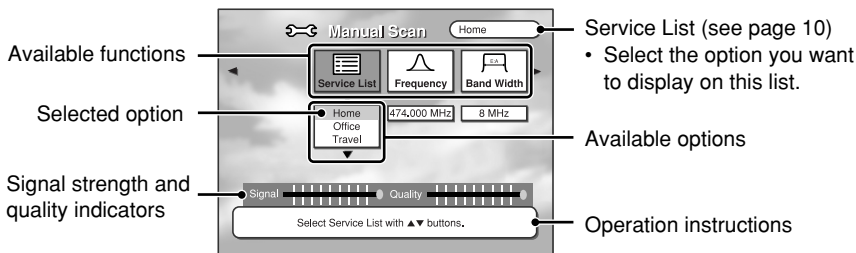Selected option

Signal strength and quality indicators

Available options

Operational instructions

Available functions/options

▤ **Service List**	Store the programs you frequently watch to the specified service group so that you can access to the network without scanning through the spectrum every time when you travel. (See also page 10 to select the available Service List.) • You can also store the programs to your own specified groups (up to 17 groups) in the Service List besides the pre-defined groups (Home, Office, and Travel). Press and hold EPG until "New" appears, then change to your own specified name. (See "Program Name" on page 10 for entering your specified name.) To delete a group, select the desired group using ▲/▼, then press and hold FAVOURITE. **Home** *[Default]*, **Office**, **Travel** (cannot be deleted nor edited)
👁 **Scan CH**	Automatically searches for the entire VHF and UHF spectrum for available services. Press ENTER to activate the search. (DO NOT press any button on the remote controller during search.) **Spectrum** *[Default]*

■ Manual Scan

You can search for a program by specifying the frequency and bandwidth.

Available functions —

Selected option —

Signal strength and quality indicators —

Service List (see page 10)
• Select the option you want to display on this list.

Available options

Operation instructions

Available functions/options

|	
▤ **Service List**	Select the place where you are now staying (see page 10 for the available Service List).
△ **Frequency**	Select a frequency for auto searching. • You can also use the number buttons to enter the frequency. Press ENTER to confirm. **174.000 MHz — 858.000 MHz** *[474.000 MHz : Default]*
▭ **Band Width**	Select an appropriate bandwidth. **6 MHz**, **7 MHz**, **8 MHz** *[Default]*
👁 **Scan CH**	Select "Scan CH" after setting the above functions correctly. Press ENTER to start scanning. **Spectrum** *[Default]*

■ Multi CH (CHannel) display

You can browse through all the available programs, up to nine programs at a time.
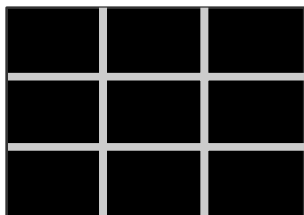
Blank windows	

After a few seconds....

A	B	C
D	E	F
G	H	I
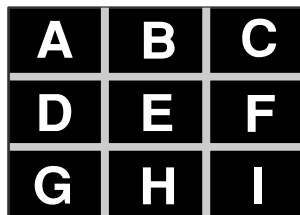
The windows will start showing snapshots of different channels in sequence.

Troubleshooting

What appears to be trouble is not always serious. Check the following points before calling a service center.

Symptoms	Remedies/Causes
• The unit does not work at all.	• Reset the unit (see page 5). • Check the cords and connections.
• "No Channel" appears on the monitor.	No channels have been preset.
• No picture appears when you switch between functions.	Wait for a few seconds for the unit to return to TV mode.
• Only sound can be heard and no picture is shown on the monitor.	• Check the video cables connection. • This unit might be in radio mode. Press TV/RADIO to enter TV mode.
• Monitor shows discontinuous, glitches, or mosaic pictures.	This is not a malfunction. Some broadcasters are using MPEG-2 signals which are subject to interference.
• Only picture is shown on the monitor and no sound can be heard.	• Adjust the sound to the optimum level. • Make sure the mute function is not activated (see page 5). • Check the audio cables connection.
• The monitor screen goes blank and teletext page does not appear.	• Wait for a few seconds for transmission time. • The monitor does not support teletext function. • Check with your local broadcaster for availability of this service.
• No pictures appear on the Multi CH (Channel) display.	There may be no broadcast signal.

Maintenance

- Turn off the power supply, then wipe with dry soft cloth. For more stubborn stains, wipe with slightly damp cloth and follow with a dry soft cloth immediately. Once in a while, clean with a light cleaning agent like alcohol or highly diluted thinner.
- Be careful with the following when maintaining the unit.
  – Be careful not to make any scratches on the surfaces when cleaning it.
  – Do not use a wet cloth for cleaning.
  – Do not use strong volatile substance like benzene and thinner.
  – Do not use strong acidic detergent, alkaline detergent, and detergent composed of organic substances.
  – Read precautions carefully when using a chemically processed duster.

Specifications

■ Processor and Memory

CPU: 32 Bit RISC MIPS
Flash Memory: 2 MB
SDRAM: 8 MB

■ Digital TV Tuner Unit

Channel Plan: CCIR (Consultative Committee for International Radio)
    Compliance to DVB-T ETSI EN300744
Frequency Range:
    VHF 174 MHz to 230 MHz
        (CH05 to CH12)
    UHF 470 MHz to 862 MHz
        (CH21 to CH69)
Input Impedance: 75 Ω
Sensitivity: 16 dBµV to 85 dBµV
Demodulator: Anti-Doppler Enhanced Demodulator Chip
FFT: 2 K and 8 K
Modulation: QPSK, 16QAM, 64QAM COFDM
Bandwidth: 6 MHz; 7 MHz; 8 MHz
Guard Interval: 1/4; 1/8; 1/16; 1/32
Code Rate: 1/2; 2/3; 3/4; 5/6; 7/8
Frequency Offset: ± 175 kHz
Dimensions (approx.):
    166 mm (W) × 45 mm (H) × 196 mm (D)
Mass (approx.): 1.0 kg (excluding acessories)

■ Terminals

Antenna Input: F-Type × 2 (IEC 169-24)
Video: RCA pin × 2; 1 V (p-p), 75 Ω Unbalanced
Audio: RCA pin × 2; 1 V (rms)
RJ45 × 1: External Remote Sensor Unit
Power Connector × 1: BATTERY, ACCESSORY, GROUND
Reset Button: For Hardware Reset (at the front casing and the external remote sensor unit)

■ Power Supply

Operating Voltage: DC 12 V (10 V to 30 V allowable voltage range)
Power Consumption: 8.5 W
Grounding System: Negative Ground
Safety: Short Circuit & Reverse Polarity Protection

■ Operating Environment

Operating Temperature: –10°C to +70°C
Operating Relative Humidity: 20% to 95%
Storage Temperature: –30°C to +85°C
Storage Relative Humidity: 10% to 95%

Design and specifications are subject to change without notice.

Having TROUBLE with operation?
Please reset your unit
Refer to page of How to reset your unit

JVC